



*An Energy-Efficiency Workshop and Exposition*  
*Orlando, Florida*

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# Energy Savings Performance Contracting (ESPC)

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# *Overview*

- **Energy Savings Performance Contracting (ESPC); Definition and Need**
- **USACE Huntsville, DOD ESPC Program**
- **DOE SUPER ESPC Program**
- **DOD/DOE Program Differences**
- **Lessons Learned/Questions and Answers**



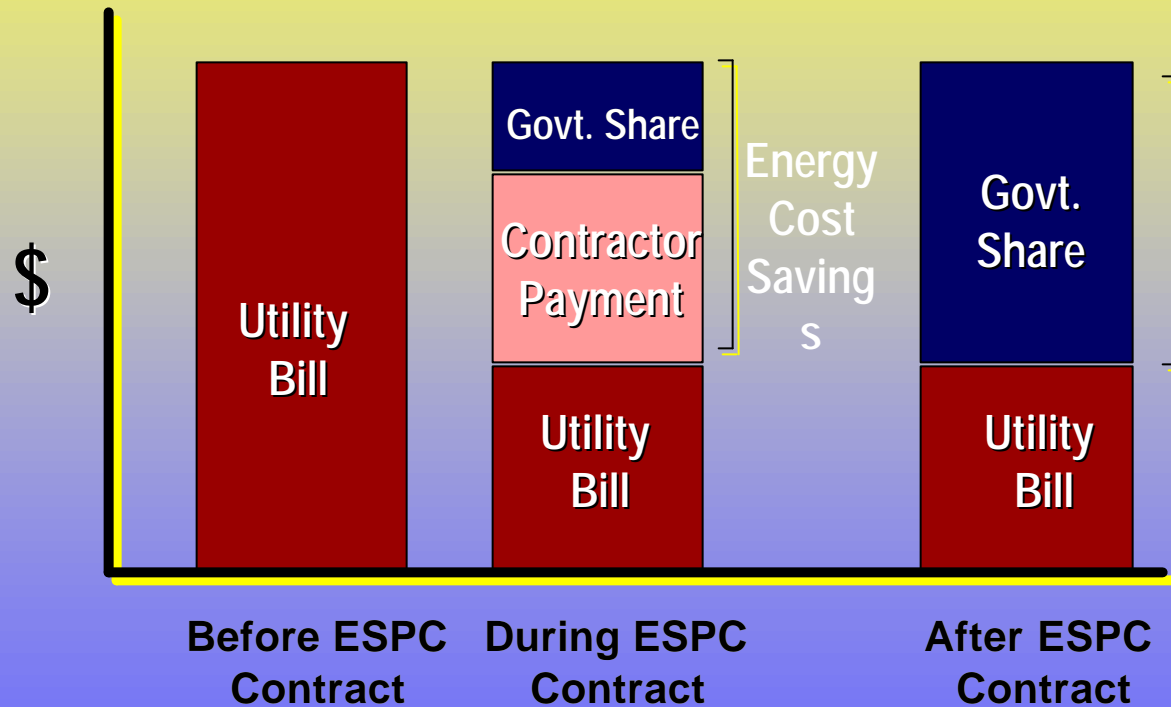
## *Energy Savings Performance Contracting*

**Definition:** A contracting method where the contractor provides capital energy improvements and maintains them in exchange for a portion of the energy and energy-related savings generated.





# How ESPC Works



*Project Costs Paid From Existing Utility / O&M Budgets*





## *EPACT, Executive Order 13123*

- **Reduce 1985 energy consumption by 35% by 2010.**
- **Demonstrate energy technology (showcases).**
- **EO 13123, Section 402: Agencies shall maximize use of available alternative financing mechanisms, including ESPC.**
- **Reduce greenhouse gas emissions 30% below 1990 levels by 2010.**





# ***Why Energy Saving Performance Contracting ?***

- **Declining budget for installation of state-of-the art, energy efficient equipment and the replacement of failed and failing systems**
- **Fewer maintenance personnel**
- **Preventative maintenance no longer possible**





# The Value of 3<sup>rd</sup> Party Financing

- **FACT:**
  - 3<sup>rd</sup> Party financing will eventually cost more than directly funding projects due to the compounding value of interest
  - It does allow you to obtain new energy- efficient infrastructure with \$0 in capital outlay



# ***Eligibility Requirements (to use DOD/DOE contracts)***

- **You must be:**
  - A federal agency with government owned facilities
    - No leased facilities
  - Located within a DOE or DOD region, or international federal facility (DOE tech specific)

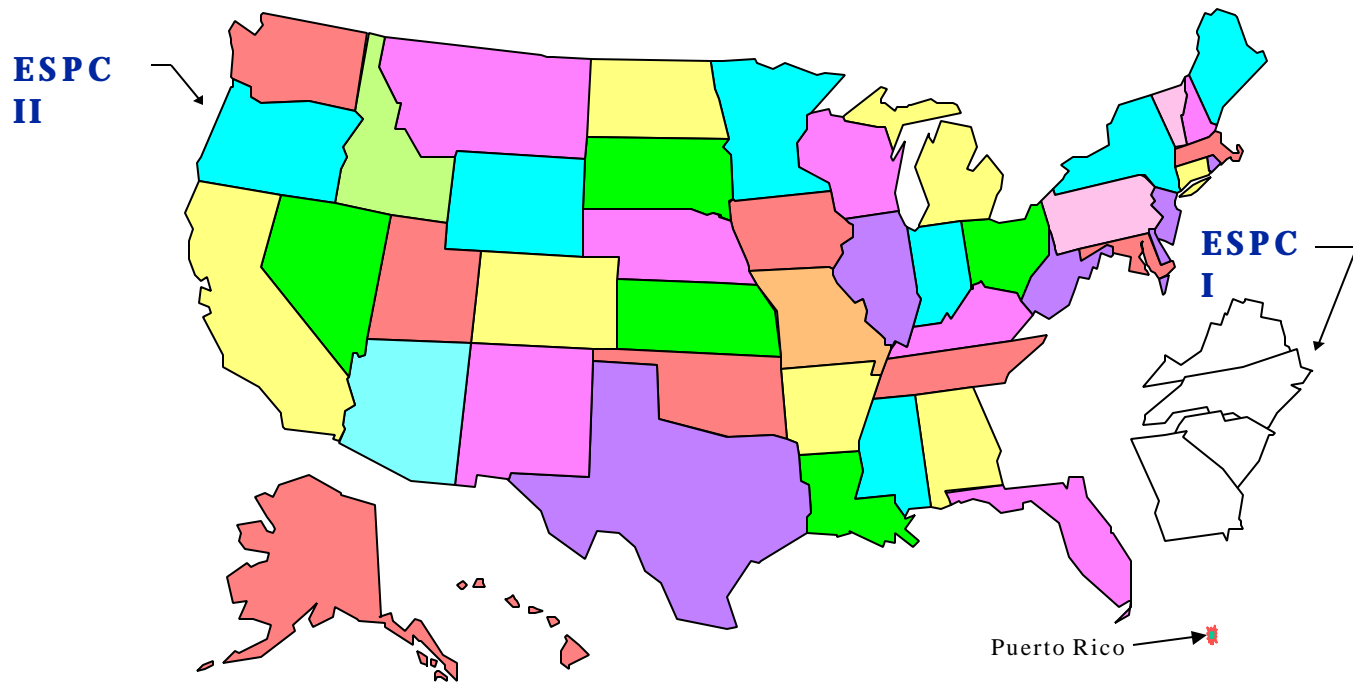


# Corps of Engineer's ESPC Program

- **Over 17 years of experience in business**
- **ESPC team essentially in one building - produces synergistic results for customers**
- **Ability to use national and international Corps assets to leverage customer support**
- **Over \$400 Million in ESPC awards (investment) and over \$118 Million in avoided costs to date**



# Corps of Engineer's ESPC Program



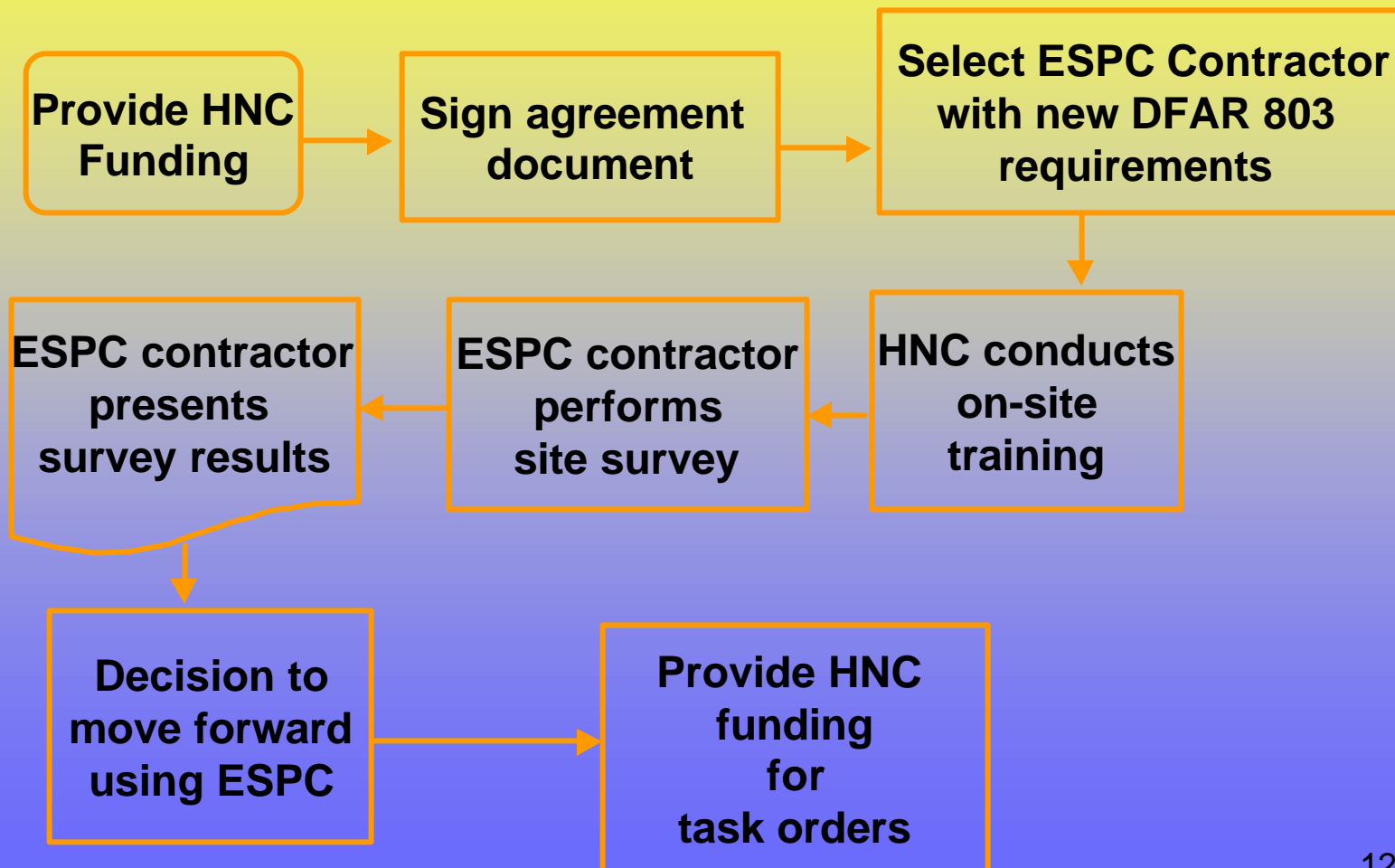


# Corps of Engineer's ESPC Program

- **Corps of Engineer's cost structure:**
  - Labor & travel costs are not pre-priced
  - Provide cost on project by project basis
  - Full “**turn key**” support (technical, legal, contracting, project management)
  - Contractors provide an estimate of their investment by project



# ESPC Startup Process







# Contractor Selection

## DFAR 803

- **Customer submits customer survey with request for HNC's services**
- **Contractors will compete to implement ECSMs for 3 years.**
- **Contractors provided the following info:**
  - **Utility Rates for the site**
  - **Types of projects site is interested in**
  - **General Installation Data**
  - **Building types and locations**



# Contractor Selection

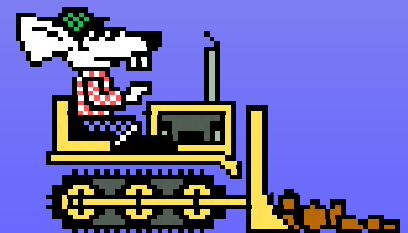
## DFAR 803

- **Contractors develop an oral/written presentation on potential ECSMs.**
- **Evaluation factors**
  - **Cost**
  - **Experience**
  - **Past Performance**



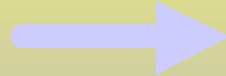
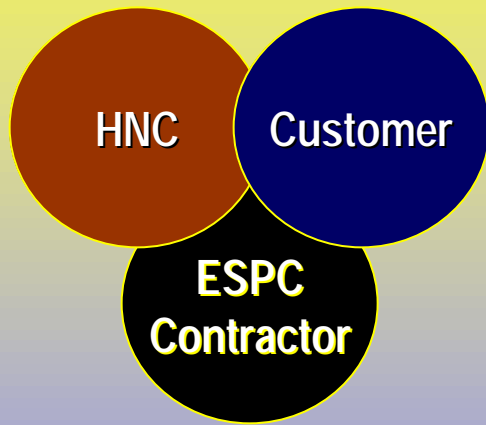
# Site Survey Results

Project Description	Contractor Investment	Submit for Review	HNC Cost to Award	Projected Award Date
1 Upgrade Lighting	\$1,250,000	Mar 23, 2001	\$31,250	May 14, 2001
2 Boiler Upgrade	\$750,000	Jun 18, 2001	\$18,750	Aug 1, 2001
3 Electric Motors	\$800,000	Jul 22, 2001	\$20,000	Aug 30, 2001
4 Gas Heating	<u>\$1,200,000</u>	Sep 14, 2001	<u>\$30,000</u>	Nov 25, 2001
	\$4,000,000		\$100,000	

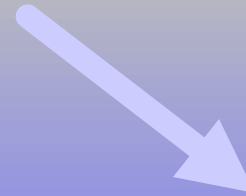




# Using HNC ESPC Contracts



**Team puts together  
ESPC proposal**

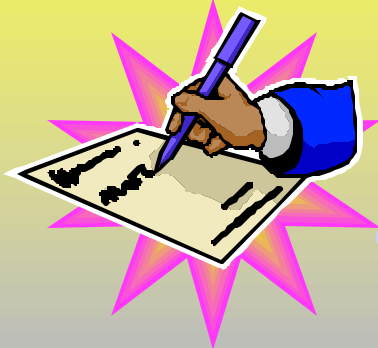


**Customer and HNC review  
ESPC Proposal**





# Using HNC ESPC Contracts (Cont.)



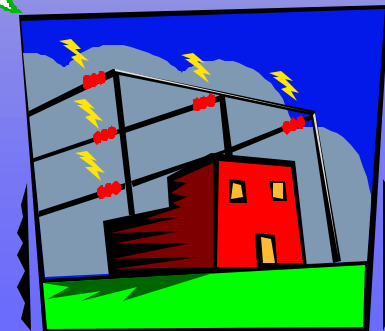
**An acceptable proposal is awarded as a task order under HNC's ESPC Contracts**



**The contractor implements the projects included in the awarded task order**



**After Government concurrence that the terms of the task order have been achieved, the contractor may begin receiving payments**





# Resource Efficiency Manager

## Duties

- Energy Manager Support
- Develop energy policies and implementation plan
- Develop Energy Awareness Program and Training
- Energy Accounting and Rate Analysis
- Energy Audits and Project Development
- Energy Program Support
- Apply for Rebates and Grants



# **Resource Efficiency Manager Funding**

**The following methods are available for funding the REM:**

- **Installation provides funding from O&M budget**
- **REM costs funded through existing energy savings projects**
- **O&M funding combined with energy savings created by the REM**



## *Lessons Learned*

**Review project after 1 or 2 years of operation.**

**Does project perform as expected ?**

- **Did contract vehicle work ?**
- **Is customer happy ?**
- **What would we do different ?**





# Lessons Learned



## What Would We do Different ?

- Documentation of facility points of contact in proposal & M&V reports ?
- Insure that M&V process is adequately detailed in the proposal ?
- Participate in pre-construction meetings ?
- Contact customer more often after project acceptance ?
- Witness of M&V testing ?





# DOE SUPER ESPC PROGRAM



# DOE SUPER ESPC PROGRAM

- Regional and Tech-Spec Awards in place for 25 years, with 25 year delivery order terms available
- Permit agencies to issue delivery orders without up-front capital outlay
- Provides free DOE project facilitation services through decision point for project
- Priced menu of services thereafter, with flexible payments through Interagency Agreements
- Provides DOE CO/COR and PM support throughout process at no charge
- Provides free Training workshops on ESPC itself, and how to issue delivery orders against contracts
- 101 agency awards to date, since 1998, with \$395 million in investment
- 78 Additional projects are currently Contractor Identified approved and in process



# DOE Technical Support Available

## – FEMP Services

- One-stop shop: project facilitators, agency technical & procurement assistance for energy and water projects
- Offers a menu of services.

Government-identified project ~ \$50K estimate

- Additional support available: a list of more specific FEMP, federal staff and DOE contractor support

Contractor-identified project ~ \$30K estimate

- Free through initial proposal review





## Definition of Super ESPC

- ✦ Covers all facilities in a geographic region
- ✦ Standardizes general terms and conditions
- ✦ Multiple award IDIQs to cadre of ESCOs
- ✦ Allows for revision of IDIQ terms by agency in delivery orders
- ✦ Projects executed by agency delivery orders placed against the IDIQ



# The Two Types of Super ESPC

- ✦ **Regional (by DOE region)**
- ✦ **Technology Specific (international)**
  - Geothermal Heat Pumps
  - Photovoltaics
  - Thermal Solar
  - Biomass and Alternative Methane Fuels



# Super ESPC Regional Areas





# Routes to Issue a DO

- **Competitive:** Process is similar to conventional competitive delivery orders.

- **Government-Identified**

- **Single-Source:** CICA processes used in placing IDIQs allows for single-source DOs without protest.

- **Contractor-Identified**

No CBD notice is required for either approach.





# Differences Between Approaches

- Project Definition:

- Contractor-identified project
  - ESCO defines project, recommends ECMs, and submits an initial proposal, as approved to do so
- Government-identified project
  - Agency defines project's technical specifications and assembles information on existing equipment (Site Data Package) and requests multiple initial proposals (Not happening much)



# Potential Advantages of Contractor-ID Approach

- ◆ Allows ESCO to get things started
- ◆ Avoids SDP development & review of multiple proposals
- ◆ Typically results in more informal and faster process
- ◆ Draws on project development expertise of ESCO industry
- ◆ Allows govt. to focus its resources
  - studying ESCO's offer
  - working w/ESCO to develop scope of project
  - verifying price reasonableness and realism



# How to Pick the Contractor

- Agency Decision
- Based on review of qualifications, past performance/references/ESCO interest/etc.
- Agency need not consider all eligible ESCOs (except DoD – needs to comply with DFARs section 803)
- No protestability of decision/no complaints to date
- ESCO chosen provided CI approval by DOE COR before any proposal



# Phase 1: Project Planning

**Explore Opportunities, Assemble Acquisition Team and Plan**

Agency

Assemble  
acquisition team

Joint  
Effort

COR &  
agency  
review  
process and  
explore  
opportunities

Informal  
communications &  
mutual interest  
in pursuing a project

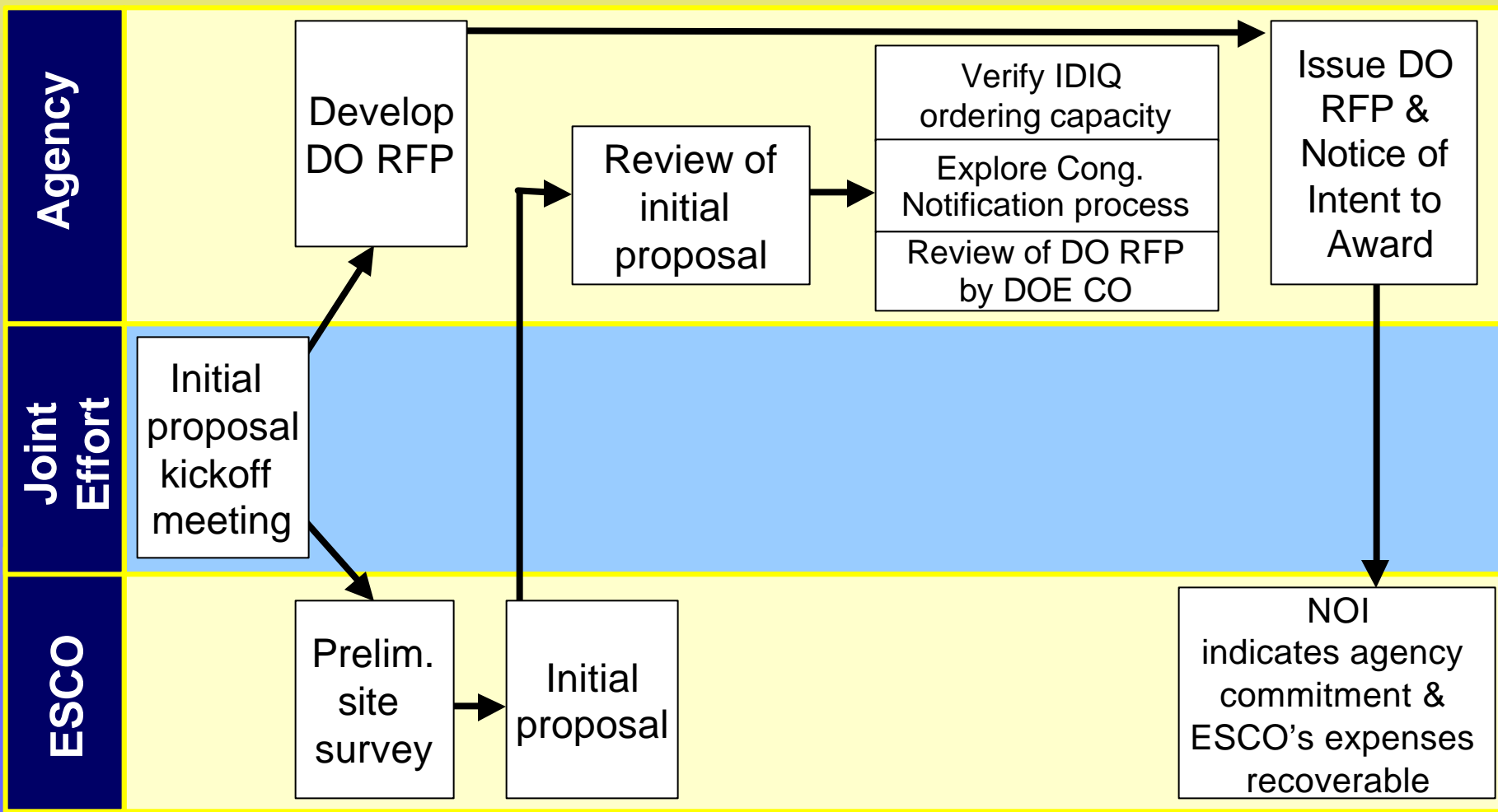
COR  
approval for  
ESCO  
to submit  
initial proposal

ESCO



# Phase 2: Initial Project Development

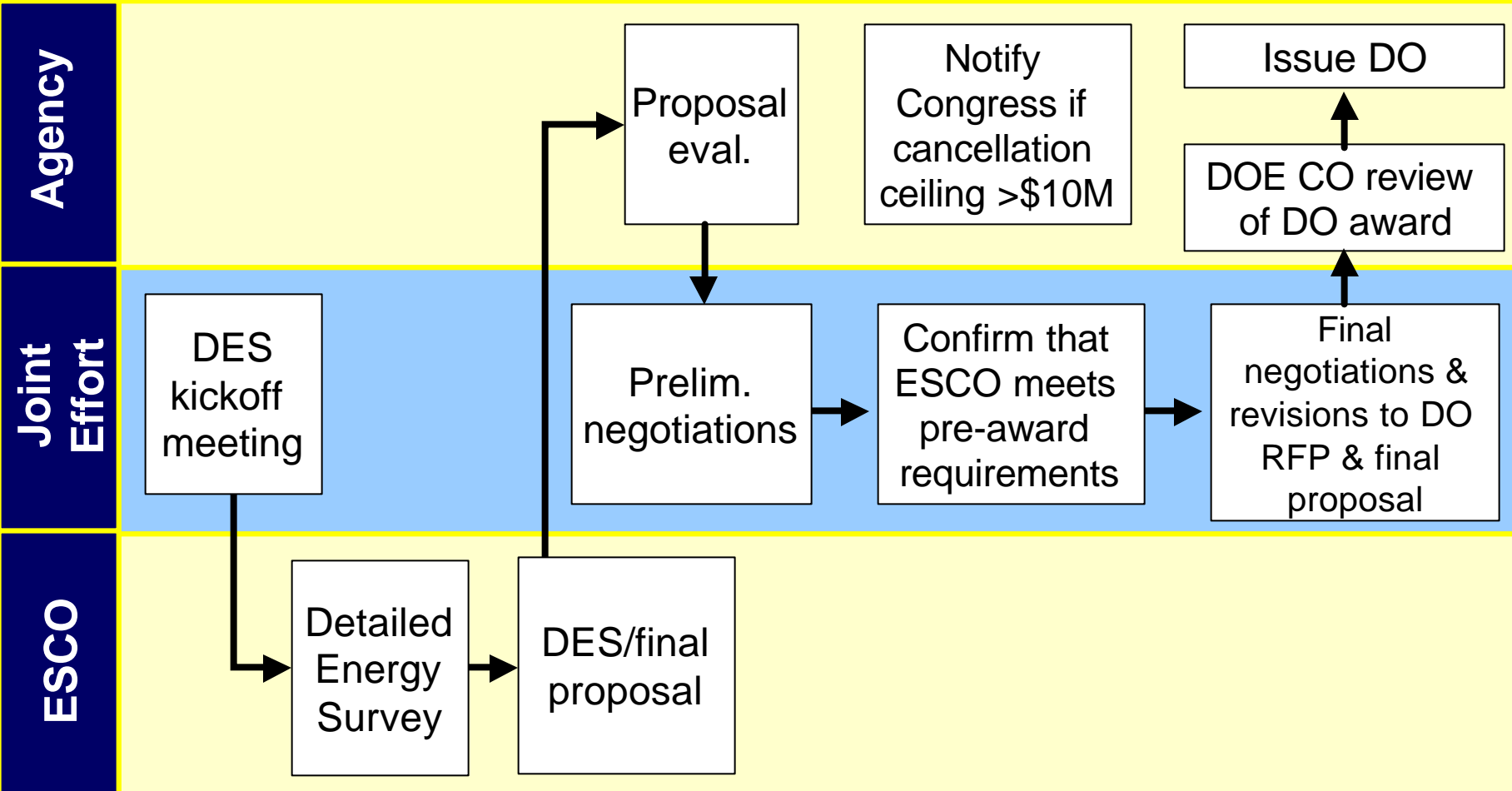
## Select an ESCO and Begin DO RFP





# Phase 3: Negotiating and Awarding the Final Delivery Order

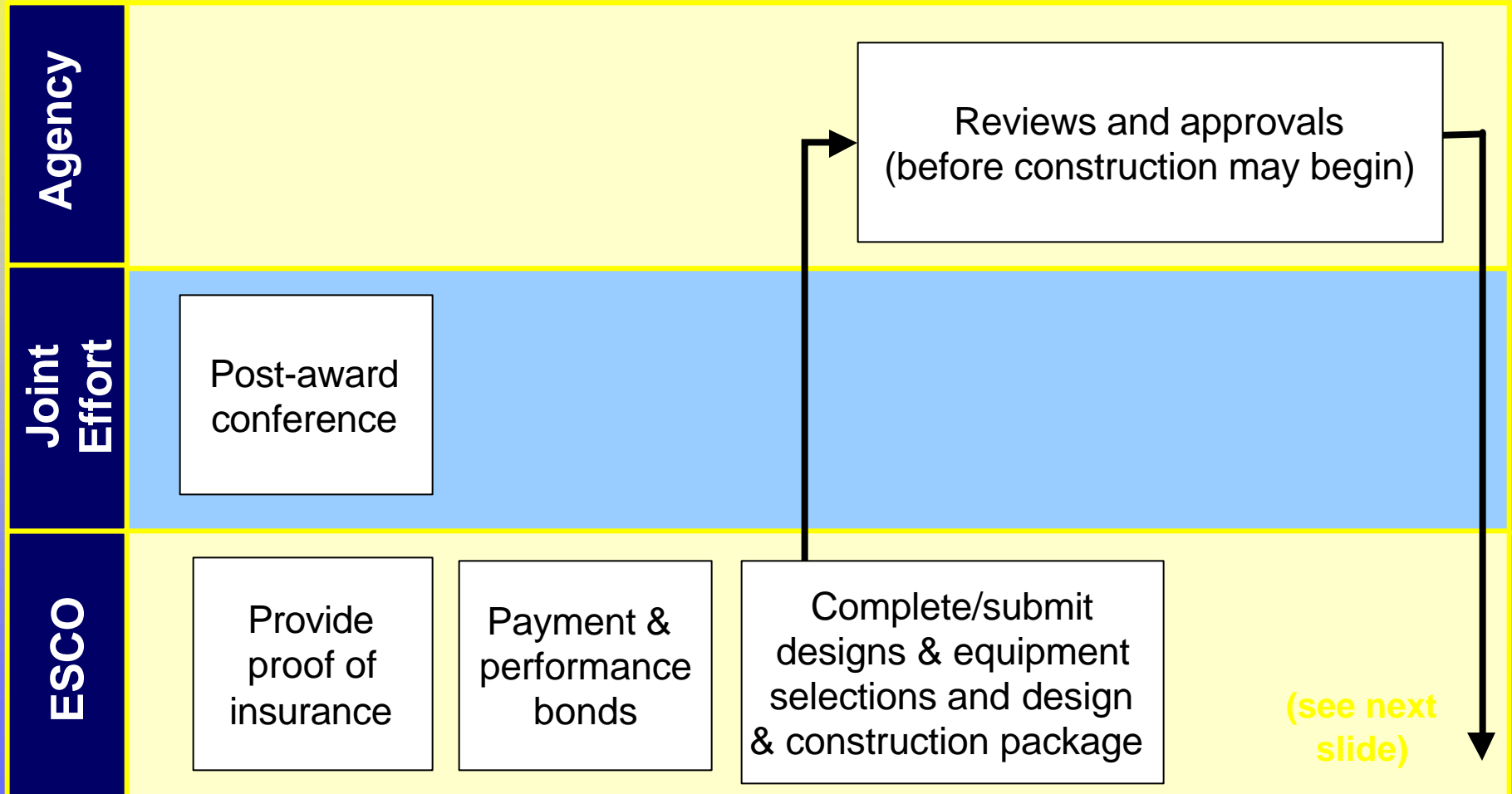
## Negotiate and Issue Final Delivery Order



# Phase 4: Implementing the Delivery Order



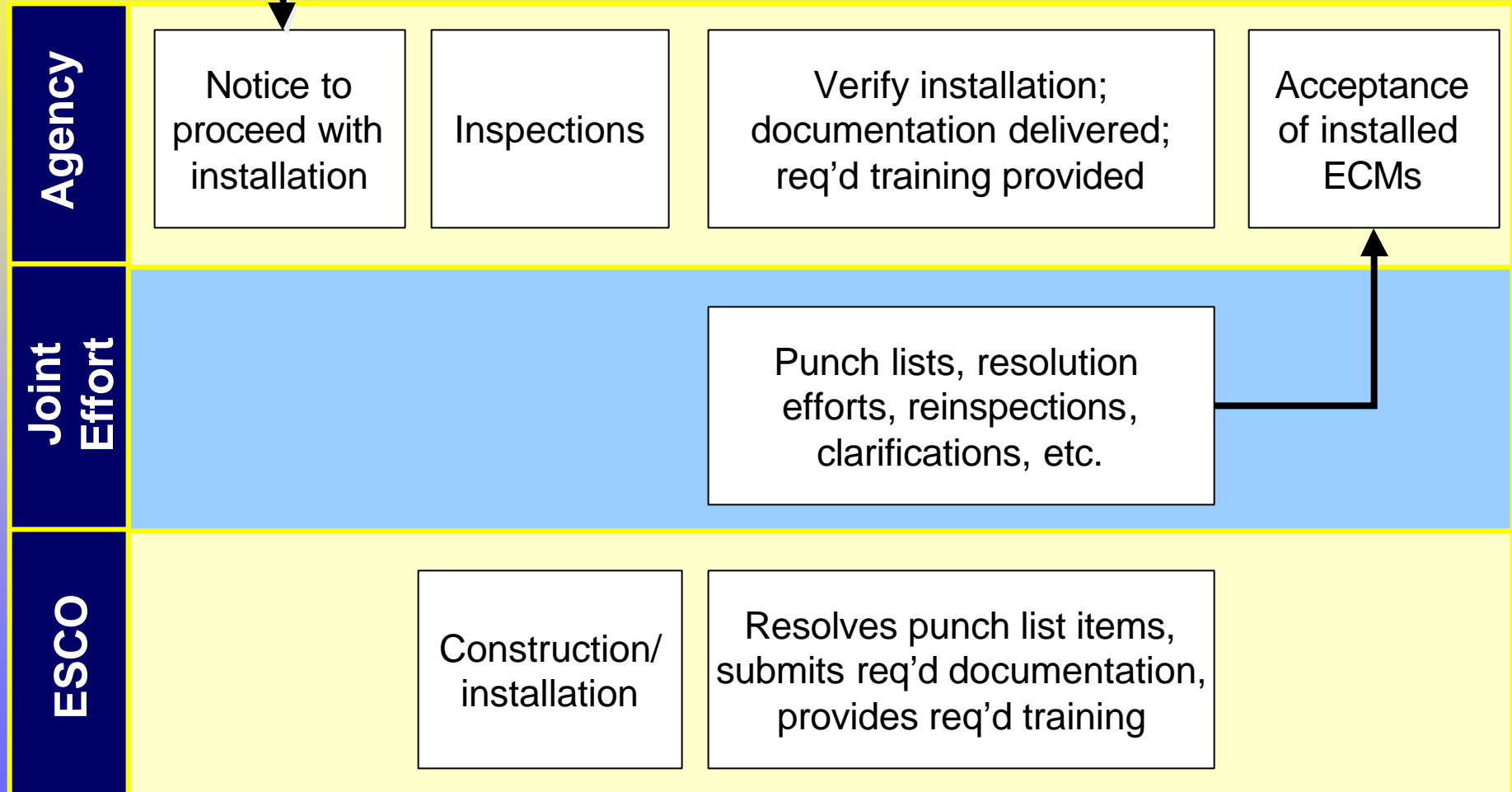
## Review and Approval of Design & Construction Package



# Phase 4: Implementing the Delivery Order

Installation, Construction Period & Project Acceptance

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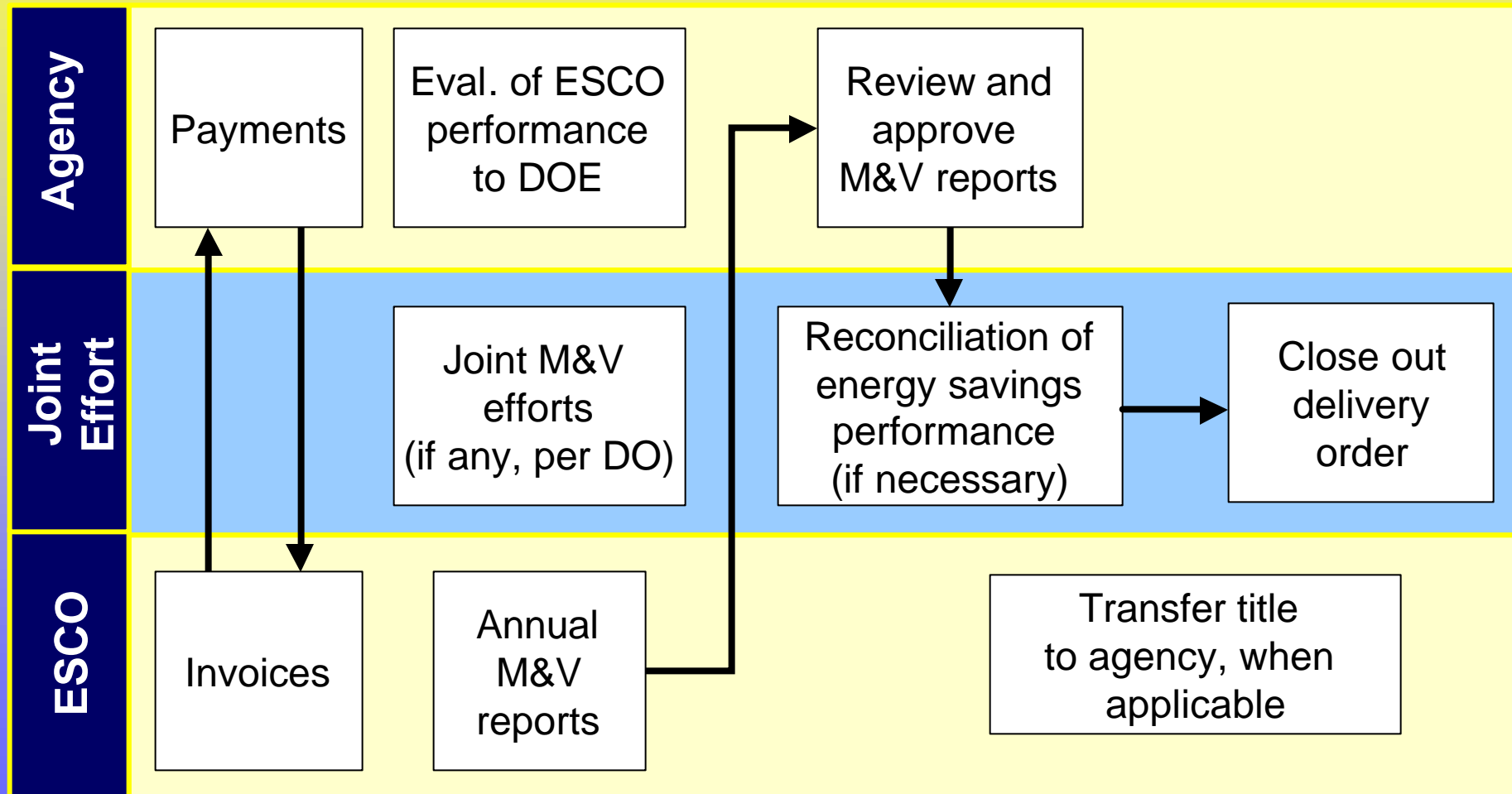




# Phase 4: Implementing the Delivery Order



## Performance Period





# DOD/DOE DIFFERENCES

- DOD:
  - DOD handles procurement
  - Cost of support priced by project
  - Depleting term for DO's, with term of contract
- DOE:
  - Agency issues and administers DO with DOE procurement /legal/COR assistance
  - Cost of support services free through initial proposal stage with optional priced project facilitation services available thereafter (and recommended)”
  - Up to 25 year delivery order term available



# Questions and Answers